CLAIMS

What is claimed is:

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- 1. An encryption key interface system comprising:
- a universal asynchronous receiver transmitter (UART) peripheral for communicating with a key variable loader (KVL) through at least one communications link;
 - a driver application associated with the UART peripheral for receiving and transmitting commands to the KVL; and
- wherein the driver application operates to communicate key command information to the KVL without the use of a timer peripheral.
- An encryption key interface system as in claim 1, further comprising:
 a key management application for communication with the driver application for
 managing the key management information.
 - 3. An encryption key interface system as in claim 2, further comprising: a general purpose input output (GPIO) peripheral for communicating with the KVL to detect when the KVL is connected with the interface.
 - 4. An encryption key interface system as in claim 3, further comprising:a KVL detection application for managing operation of the GPIO peripheral.
- 5. An encryption key interface system as in claim 3 wherein the UART peripheral and the GPIO peripheral communicate with the KVL over separate data links.

- 6. An encryption key interface incorporated within an electronic device for communicating with a key variable loader (KVL) comprising:
- a universal asynchronous receiver transmitter (UART) peripheral for transmitting and receiving key commands from the KVL;
- 5 a KVL driver application for communicating command information to the UART peripheral;
 - a KVL management application operating with the KVL driver application for interpreting key command data from the KVL; and

wherein the KVL driver operates without a timer peripheral enabling the UART peripheral to utilize parity error information to validate communication with the KVL.

- 7. An encryption key interface as in claim 6, further comprising: a general purpose input output peripheral operating with a KVL detection application for detecting when a KVL is initiating communication with the electronic
- 15 device.
 - 8. An encryption key interface as in claim 6, wherein the UART peripheral and GPIO peripheral communicate with the KVL over separate communications links.

9. A method for using an encryption key interface for communicating key encryption information from a variable key loader (KVL) to an electronic device comprising the steps of:

detecting a first detection signal at a universal asynchronous receiver transmitter (UART) within the electronic device;

transmitting data from the KVL to the UART;

transmitting a second detection signal from the UART to a KVL application when the UART detects a receive data byte;

transmitting a third detection signal from the UART to the KVL application indicating all data has been received; and

transmitting a fourth detection signal from the UART to a KVL link layer application for sending subsequent data until all data has been transmitted by the UART.

- 10. A method for using an encryption key interface as in claim 9, wherein the first detection signal is a break detect indicating a unique KVL signature.
 - 11. A method for using an encryption key interface as in claim 10, wherein the second detection signal is a receive data interrupt command indicating to the UART that data has been transmitted from the KVL.

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- 12. A method for using an encryption key interface as in claim 11, wherein the third detection signal is idle pattern detect indicating a predetermined number of idle byte times have been received by the UART.
- 25 13. A method for using an encryption key interface as in claim 12, wherein the fourth detection signal is idle pattern detect indicating to continue transmitting another byte in the response message.